**Amendments to the Claims**:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A mark position detection apparatus which comprises:

an illumination optical system for illuminating a measurement mark with illumination light;

an imaging optical system for converging light reflected from said measurement mark to form an image of said measurement mark on an image pickup apparatus, said mark position detection apparatus measuring;~~and which measures~~ a positional displacement of said measurement mark by processing an image signal obtained by said image pickup apparatus; and

~~wherein~~ an optical element that ~~for compensating a difference in asymmetry of said image signal that depends on the wavelength of said illumination light,~~ is provided in a parallel light flux portion of said illumination optical system and compensates a difference in asymmetry of said image signal generated by positional displacement of an image of an illumination aperture stop caused by a shorter wavelength range and a longer wavelength range of said illumination light.

2. (Canceled)

3. (Currently Amended) A mark position detection apparatus which comprises:

an illumination optical system for illuminating a measurement mark with illumination light; ~~and~~

an imaging optical system for converging light reflected from said measurement mark to form an image of said measurement mark on an image pickup apparatus, said

mark position apparatus measuring ~~and which measures~~ a positional displacement of said measurement mark by processing an image signal obtained by said image pickup apparatus; and

~~wherein~~ an optical element that ~~for compensating a difference in asymmetry of said image signal that depends on the wavelength of said illumination light,~~ is provided in a parallel light flux portion of said imaging optical system and compensates a difference in asymmetry of said image signal generated by positional displacement of a pupil of the imaging optical system caused by a shorter wavelength range and a longer wavelength range of said illumination light.

4. (Previously Presented) A mark position detection apparatus according to claim 1, wherein said optical element comprises a plane parallel plate.

5. (Previously Presented) A mark position detection apparatus according to claim 1, wherein said optical element comprises a plane parallel plate provided with a tilting mechanism.

6. (Currently Amended) A mark position detection apparatus which comprises:

an illumination optical system for illuminating a measurement mark with illumination light; ~~and~~

an imaging optical system for converging light reflected from said measurement mark to form an image of said measurement mark on an image pickup apparatus, said mark position apparatus measuring; ~~and which measures~~ a positional displacement of said measurement mark by processing an image signal obtained by said image pickup apparatus; and

~~wherein~~ a first optical element is provided in said illumination optical system and a second optical element is provided in a parallel light flux portion of said imaging

optical system~~, thereby compensating a difference in asymmetry of said image signal that depends on the wavelength of said illumination light.~~for compensating a difference in asymmetry of said image signal generated by positional displacement of an image of an illumination aperture stop and a pupil of the imaging optical system caused by a shorter wavelength range of a longer wavelength range of said illumination light.

7. (Original) A mark position detection apparatus according to claim 6, wherein each of said first optical element and said second optical element comprises a plane parallel plate.

8. (Previously Presented) A mark position detection apparatus according to claim 6, wherein each of said first optical element and said second optical element comprises a plane parallel plate provided with a tilting mechanism.

9. (Previously Presented) A mark position detection apparatus according to claim 6, wherein said first optical element or said second optical element comprises a plane parallel plate provided with a tilting mechanism.

10. (Currently Amended) A method for adjusting a microscope apparatus having an illumination optical system for illuminating a measurement mark with illumination light and an imaging optical system for converging light reflected from said measurement mark to form an image of said measurement mark on an image pickup apparatus, said microscope apparatus detecting a positional displacement of said measurement mark by processing an image signal obtained by said image pickup apparatus, the method comprising:

providing an optical element for shifting ~~an~~ a light axis of said illumination light at a position in ~~the~~ a vicinity of a position of an illumination aperture stop or a position conjugate with the position of the illumination aperture stop; and

adjusting said optical element ~~in such a way that illumination wavelength dependency of said image signal becomes minimum.~~to minimize a difference in light intensity values based on said image signal generated by positional displacement of an image of the illumination aperture stop caused by a shorter wavelength range and a longer wavelength range of said illumination light.

11. (Original) A method for adjusting a microscope apparatus according to claim 10, wherein said measurement mark comprises linear indents having a regular width that are arranged periodically with regular intervals.

12. (Original) A method for adjusting a microscope apparatus according to claim 10, wherein said measurement mark comprises at least two small rectangular indents having the common center, and the depths of said two rectangular indents are different from each other.

13. (Previously Presented) A method for adjusting a microscope apparatus according to claim 10, wherein said measurement mark comprises an indented portion having a depth equal to two to six times the focal length of said microscope apparatus.

14. (New) A mark position detection apparatus according to claim 1, wherein said optical element is adjusted such that a first measurement error tool induced shift (TIS) is measured upon limiting a shorter wavelength range in said illumination light, a second measurement error TIS is measured upon limiting a longer wavelength range, and said optical element is adjusted to make a difference in the first and the second measurements minimum.

15. (New) A mark position detection apparatus according to claim 3, wherein said optical element is adjusted such that a first measurement error TIS is measured upon limiting a shorter wavelength range in said illumination light, a second measurement error TIS is measured upon limiting a longer wavelength range, and said

optical element is adjusted to make a difference in the first and the second measurements minimum.

16. (New) A method for adjusting a microscope apparatus according to claim 10, wherein said light intensity values are values based on optical characteristic derived from a profile of said image signal or variation in a difference between said image signal of ends of edges of said measurement mark calculated from the profile.

17. (New) A mark position detection apparatus according to claim 1, wherein said optical element is disposed downstream of the illumination aperture stop and located in a parallel light flux portion between the illumination aperture stop and a condenser lens.

18. (New) A mark position detection apparatus according to claim 3, wherein said optical element is disposed upstream of an aperture stop of the imaging optical system and located in a parallel light flux portion between the aperture stop of the imaging optical system and a relay lens.

19. (New) A mark position detection apparatus according to claim 6, wherein the first optical element is disposed downstream of the illumination aperture stop and located in a parallel light flux portion between the illumination aperture stop and a condenser lens and the second optical element is disposed upstream of an aperture stop of the imaging optical system and located in a parallel light flux portion between the aperture stop of the imaging optical system and a relay lens.